

Biodiesel Commission Meeting Minutes August 30, 2007

Present: Reps. David Borden, Suzanne Harvey, Peter Schmidt; Joe Broyles, Barclay Jackson, Michael Elder, Anthony King, Dick Uncles, Tim Hickey, Darrell Zwicker, James Robb, Roger Wood (NHPR); Ihab Farag, Joel Anderson, Ralph Freeman, Mark Coulson, Dan Evans, Becky Ohler, Joanne Lamprey, Matt Hotchkiss

Chairman David Borden called the meeting to order at 10:08 A.M. at the DES offices at Pease International Tradeport. Chairman Borden stated the goals of the commission are to revitalize NH agriculture, identify legislation that can help stimulate demand for biodiesel, and create a report by 11/1/07.

New attendees were introduced and provided an overview of their interest in the work of the commission. Rep. Peter Schmidt gave a report on the Commission to Study Recycling of Grease Trap Waste. He said that yellow grease is being used heavily, but the concern is brown grease, which is mostly dumped. There are pilot plants for use of brown grease in energy production.

Joe Broyles said NH should have "energy assurance"; we need indigenous sources of energy.

Darrell Zwicker said Lamprey Brothers gives customers an option to purchase biodiesel (B5 blend).

Tim Hickey reported that his company, Atlantic Biodiesel, has finalized their contract for soy oil and would be in full production in 45 days. They are expecting equipment delivery in September and plan to produce 10 million gallons of biodiesel.

Roger Wood from NH Public Radio is interested in the work and outcome of the commission.

Ralph Freeman of Champion Energy and Rye Fuel said his company is marketing biofuel (soy-based B-5) to homeowners on the seacoast.

Mark Coulson lives in Hebron NH and is interested in creating greater use of biodiesel and biofuel

Dan Evans of the Evans Group said there is a strong bio movement and an association in Vermont. His company brings biofuel in railcars from the Midwest to Lebanon, then they blend it themselves. They have been in the biodiesel business for 2 years and do both wholesale and retail distribution

Joe Broyles spoke about the potential demand for biofuels. Based on 2004 Energy Information Administration data (458,000,000 gallons of diesel fuel used in NH), and assuming B20 for transportation and electricity and B5 for heating there is the potential demand for 41.5 million gallons of biodiesel (B100) in NH. He referred to a handout that included a hypothetical economic look at biodiesel's potential to reduce the net export of NH energy dollars and concluded that \$58.4 million

could have stayed in the state if NH were producing and consuming our own biodiesel and biofuel. Prof. Farag said this is not necessarily a savings, but an investment.

Dick Uncles said there are about 50,000 acres available for growing oil seed crops for biodiesel. It takes approximately 10,000 acres to produce 1 million gallons of fuel, therefore NH does not have adequate agricultural to meet our own demand using oil seed crops. The hay and forest sector has potential. Prof. Farag concurred those 50,000 acres could yield 5 million gallons of biodiesel. Dick said that canola has good potential, and sunflowers would yield almost double canola.

Chairman Borden said algae might be able to bridge the gap between the potential demand and potential agricultural production

Rep. Schmidt questioned the potential of hemp for biofuel. Growing hemp for oil is a totally different agricultural crop than growing it for fiber. Also, canola yields more oil per acre than hemp.

Prof. Farag said that National Renewable Energy Lab (NREL) figures estimate 2 million gallons annually of yellow grease therefore with 2 million gallons of biodiesel from yellow grease and only 5 million from agricultural sources NH is still a long ways away from meeting our own 40+ million gallons demand. There is a large potential for biodiesel from brown grease, but the numbers are not currently available.

Dick Uncles said there are 120,000 acres in crops in NH, mostly hay, and not tillable land. Joe Broyles asked if there is any possibility for perennial plants; Dick said yes, as biomass.

Becky Ohler said the free market works in NH but we need to identify what inhibits demand for biofuels. If we can increase demand, the agricultural sector will step up.

Dick Uncles noted the source of animal fats from livestock and meat processing. Farms lose 5-10% of their livestock each year. There used to be a market for them at rendering facilities, but with switch away from lard by fast food restaurants rendering companies no longer pick up animals. If there were a local livestock processing facility then there would be a more local supply of fats. Some other possible sources include supermarket/meat market trimming, deer processing facilities, and laying hens (hens only live about 10 months and are not good for human food after).

Chairman Borden reminded the group the main bottlenecks to production and distribution of biofuels (on-road fuel, non-road fuel, and heating oil) , which are feedstocks, research, regulatory issues, fuel quality, awareness and demand, and infrastructure.

Dan Evans suggested that awareness has peaked and asked how do we increase it and build demand? Infrastructure is expensive. Need to match level of infrastructure to the level of demand. The fuel industry cannot afford to over-build.

Tim Hickey pointed out that demand drives supply, so we should be looking at how to increase demand.

Barclay Jackson said that Minnesota has mandated that all diesel in the state be 2%. It was contingent upon in-state production being able to provide a large portion of that (as well as contingent upon federal tax incentives). These targets were met last summer.

Becky said that former Rep. Campbell's biodiesel bill last session failed because it mandated the purchase of biodiesel by heating oil companies, but did not require anyone to purchase the fuel from them. It also did not take into consideration lack of infrastructure in the state to store and blend the fuel. The legislature cannot pass an unfunded mandate to municipalities, but could and should lead by example by using the fuel. The legislature could consider requiring use of biodiesel and biofuel by state government. Dan agreed.

Joe added that state government is the largest user of energy in the state.

Joanne Lamprey said the demand is still there but the supply isn't. Oil burners have not been authorized to use B5 with warranties, with the exception of one manufacturer. The state could tell oil burner manufacturers that to sell in NH they have to warranty B5.

Becky said B5 definitely reduces greenhouse gas but we still need more research on whether criteria air pollutants are reduced at this level, and DES is studying what else might be emitted.

Joanne suggested that the state mandate school buses to use biofuels. Becky said that Oyster River is using it in their school buses in a case study funded by DES. The state cannot pass an unfunded mandate.

There was a discussion of biofuels for home heating, including issues of cost (B5 is now \$.03/gal more than regular home heating oil, said Ralph Freeman. Use of blends above B20 may dislodge sludge in fuel tanks and should be done with caution. Joanne added that the savings is in the service.

Ihab suggested that small biodiesel production research facilities should be exempt from State requirements for road toll.

Joanne suggested that the term bioheat be used instead of biodiesel to raise awareness of biodiesel for home heating. Other heating oil suppliers agreed.

Chairman Borden said the Commission should meet with distributors Sprague and Irving Oil. We also need to think about mandating B5 and what are the barriers, he said. James Robb from DRED suggested we consider doing this regionally with VT and ME. Becky said NESCAUM is studying whether to do this for B5 bioheat. Current distribution points for diesel fuel and heating oil are Albany, NY, Portsmouth, NH, and Boston, MA.

Chairman Borden said we will discuss tax incentives for off and on road at the next meeting.

Joel Anderson, from House research, noted that the new RPS statute passed in the '07 session makes mention of a thermal RPS to be considered, and we might include this in our discussions to increase demand.

The next meeting of the Commission will be on September 13th at 1:00 P.M. in the LOB